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ABSTRACT

This paper reports on a study conducted to determine the extent to which failing secondary school students can be identified in advance through analysis of student records. The research, conducted in an urban school district, utilized data such as achievement test results, school attendance, and course grades, as well as a survey of sample students and teachers. Study results showed that, despite the availability of large amounts of data and the fact that the analysis did identify some key differences between promoted and nonpromoted students overall, the discriminant analysis procedure was not useful in classifying students as probable failures. Conditions hindering the classification attempt included (1) the overlap of key factors such as attendance and achievement levels, (2) the school policy requiring a student to pass the fourth quarter in a course before passing the course, and (3) the promotion requirement in grades 9 through 11. Implications are that intervention program placement must be done by staff members with more detailed knowledge of student records and reports from teachers. Four tables are included. The appendix includes one page of references, a summary of results of a grade 9 and 10 student survey, and a correlation chart. (IW)

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FAILING STUDENTS: CAN YOU IDENTIFY THEM IN ADVANCE?

by

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Paper Presented at the Annual Meeting of the
American Educational Research Association

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FAILING STUDENTS: CAN YOU IDENTIFY THEM IN ADVANCE?

OVERVIEW

This study was conducted in an urban school district with an enrollment of approximately 50,000 students in grades K-12. The primary impetus for this research effort was the local Board of Education's concerns about high non-promotion rates at the secondary school level. The Board asked for a means of identifying probable failures in advance with the intent of providing an intervention which would increase passing rates in this group of students.

The research procedure utilized data such as achievement test results, school attendance, and course grades which were maintained in a central computer file for the school system's approximately 22,000 students at the secondary level (grades 7-12). In addition, a survey was conducted with a sample of students and teachers to provide potentially useful attitudinal data. The major issue addressed through the procedure was the extent to which failing students could be identified in advance through an analysis of student records maintained at the school system's central office level.

Data analysis included correlational and discriminant analyses in an effort to identify variables correlated with student failure and which might be used to classify students as likely to pass or likely to fail.

This paper contains a discussion of the research procedures utilized, a summary of the results, and a discussion of the study findings and their implications.

BACKGROUND

Despite lack of clear guidance from research, educators make decisions each year which result in non-promotions for large numbers of students. These decisions for the past several years have been made at a time when schools are under stress to have higher standards and to improve achievement

levels of all students. At the school system in which this study was conducted, a sharp increase in failure rates (from approximately 3% in 1971 to over 9% in 1984) seems to have been a by-product of a very successful effort to improve student achievement. This increase in failure was especially apparent at grades 9 and 10 where failure rates jumped from about 7% to over 25% in this same time period. Locally developed standards for promotion at these grades required students to obtain at least a minimum number of Carnegie units by the end of each school year.

Following the local Board of Education's requests for a study of student failure, a review of the literature was conducted to obtain information on this topic and to learn of existing methods for identifying probable failures at the secondary level in particular. Unfortunately, it was found that most of the reported studies had been conducted on students at the elementary school level and few studies have been reported on retention in secondary schools. Fleming and Zafirau (1982) examined grading issues at the secondary level in an urban school district and reported that failing grades and non-promotion rates were related to rates of class attendance and school suspensions. Osborn (1971), in an effort to determine the educational needs of secondary students who were high risk for failure, reported that these students did differ considerably from honor roll students on self-reported variables such as attitudes toward school, problems at home, completion of homework and the need to change one or more teachers. Neither study, however, had results which seemed adequate for classifying potential failures accurately.

The literature on school dropouts contains many studies which identify characteristics of dropouts. Findings from 45 such studies were summarized by a special study committee in Ohio (Ohio Department of Education 1981) which reported that dropouts were characterized by low reading and math skills, poor school attendance, previous school failure, lack of participation in school activities or sports, low economic status, unhappy home life, one parent households and drug abuse. These findings agree with earlier

literature reviews reported by Yudin and others (1973) and Tseng (1972), and they were utilized where possible, in this current study even though it was unclear just how strongly related these variables were to student failure.

Support was found in the literature for identifying likely failures as early as possible and providing interventions designed to decrease failure rates (Medway, 1984 and Norton, 1984), but a procedure for accomplishing these tasks successfully was not found.

STUDY OBJECTIVE

Consistent with the Board of Education's request, the following objectives provided the focus for this study.

a. To identify factors highly related to the non-promotion of students

b. To obtain student and teacher views on student failure.

c. To establish a procedure for early identification of failing students.

METHOD

Data for this study came from two major sources--a survey of students and teachers within the school system and the computerized records on all of the school system's secondary level students. These data were analyzed through the discriminant analysis procedure. The two data sources and the analysis procedure are discussed in detail in this section.

Survey Procedure

Following a review of the pertinent and readily available literature on student failure at the secondary level, it was decided by the researchers that additional data on the local population of students would be needed to address the study objectives adequately. A survey of students was selected as a means of collecting some of the necessary data, and it was decided that grade nine and ten students would be the student population to be surveyed due to high failure rates at these grade levels.

The review of literature had yielded a set of factors that seemed related to student failure, and survey questions were built around the following variables: family characteristics, attitudes toward school, involvement in school activities, and school records and plans. Additional questions were included in the survey to obtain student views on reasons why students fail.

The survey population was a 50% random sample of English classes at grades nine and ten with the exception of classes designed specifically for high achieving students. Following the selection of classes, survey answer sheets containing enough preprinted information to identify students (a student code number used for school system record keeping) were prepared from computerized class rosters. The coding information was important since it allowed the merger of survey responses with achievement and promotion data on individual students. Classes for high achieving students (roughly the upper three stanines in achievement status) only were excluded from the sample because the researchers wanted to maintain the likelihood of finding an adequate number of failing students within the survey population. It was felt that few high achieving students would be likely to fail and that the range of achievement scores would not be restricted too badly through this action since some high achieving students remained in the survey population.

The student questionnaire is shown in Appendix A. Responses were marked on the preprinted and machine scoreable answer sheets. The survey was conducted in March of 1985 on an eligible student population of about 3,000 students. Teachers were asked to administer the surveys to their selected classes within a one-week period with no requirement for following up on absentees. The completed answer sheets were scanned and recorded through the school system's data processing office, and the responses were added to a file containing other information by student.

Data Analysis

Analysis of the survey data included a factor analysis and the development of factor scores in addition to the computation of item data and chi-square analysis on item data versus promotion status. The factor analysis procedure utilized was the principal components method with varimax rotation available in the SPSS-X package.

The SPSS-X version of discriminant analysis was used also in an effort to classify students as promoted or non-promoted on the basis of all available data. Variables entered in this procedure included factor scores from the survey responses, student attendance data, reading and mathematics achievement status scores, reading and mathematics achievement gain scores, race, and overage status.

RESULTS

Survey Data

A total of 2,424 students responded to the survey for a return rate of approximately 80% from all students in the selected English classes. The respondents were about equally split between ninth and tenth grade (52% were from grade nine and 48% from grade ten) and by sex (50% male and 50%

female). Racial balance in the sample population matched the systemwide percentages at these grade levels (62% Black and 38% White), and as a group, the respondents were almost normally distributed on reading achievement status (22% in stanines 1-3, 59% in stanines 4-6, and 19% in stanines 7-9). A total of 423 (17.5%) of these students were not promoted at the end of the school year.

Appendix A contains a detailed summary of student survey responses including a breakdown of responses between students who were promoted and those who were not promoted at the end of the school year. The results of a chi-square analysis of responses between these two groups are also shown in this appendix. A discussion of some of the major findings are discussed below.

Family Characteristics. Promoted and non-promoted students differed significantly (a X^2 value with $p < .001$) on eight of the eleven items in this portion of the survey (items 1-11). Non-promoted students were more likely to live with their mother only (55% to 40%), but their mothers were less likely to have any college training (31% to 41%). A higher percentage of non-promoted students (64% to 54%) reported that someone from their family had talked with their teachers during the year. Responses on the other items did not seem to differ between the two groups in any meaningful way.

Attitudes Toward School. Promoted and non-promoted students differed statistically on five of the ten items under this heading. Non-promoted students were less likely to indicate that they liked school (51% to 68%) and much less likely to indicate that they liked their particular school (39% to 59%). They were also less likely to feel that their teachers cared about them (35% to 45%) and to indicate that they had received praise or reward from a teacher during the year (43% to 60%). Non-promoted students were more likely to say that school was boring (34% to 25%), and less likely to indicate that they looked forward to coming to school (43% to 51%).

Involvement in School Activities. Non-promoted and promoted students differed statistically on four of the ten items under this section. Non-promoted students were less likely to be on a school sports team (19% to 24%), belong to a school club or organization (17% to 31%), attend special school events (59% to 68%), or to be involved in any organization outside of school (20% to 27%). They were also more likely to have been in serious trouble outside of school (22% to 11%), but they were less likely to hold a part-time job (21% to 23%).

School Records and Plans. The two groups of students differed significantly on six of the nine items under this heading. Non-promoted students were more likely to have failed a grade in elementary school (23% to 12%) or in junior high school (26% to 11%) and much more likely to have been suspended from school (61% to 34%). A much smaller percentage of the non-promoted students expected to be promoted (48% to 80%) and they were less likely to feel that they would graduate from high school (78% to 91%).

Reasons for Failure. An additional twenty-one items were included to ascertain student views on reasons for school failure. Responses differed statistically between the two groups on twelve of these items. Both groups agreed, however, on many of the reasons for failure, and the following reasons received the largest affirmative response--high absence rates, non-completion of assignments, not studying, doesn't care, doesn't take school seriously, not paying attention in class, and involvement with drugs and alcohol. These items were rated affirmatively by at least 62% of the respondents.

Prediction of Student Failure

Three separate analyses using the discriminant analysis procedure were conducted in an effort to predict student failure from the available data. These analyses included using survey responses only, using survey responses in addition to most of the other data readily available in the computerized

student file, and some selected file data which would routinely be available early in the school year. A discussion of the results follows below.

A factor analysis of the survey responses identified ten factors. Factor scores were computed using the procedure available in the SPSS-X package, and the factor scores were entered into the discriminant analysis procedure. This effort failed to yield a discriminant function. These scores alone were not adequate to classify the two groups accurately.

A follow-up discriminant analysis was attempted using selected item responses from the student survey with the intent of using these responses to classify students as likely to pass or likely to fail. Results of the analysis are shown in Table 1. This procedure classified 81% of the students correctly when the predictions of promotion or non-promotion were compared with the actual end-of-year status for each student. As can be seen, however, from Table 1, the predictions indicated that 84.3% of the non-promoted students should pass. It was concluded that survey responses alone would not be adequate to classify students accurately.

Table 1. Results of the Discriminant Analysis Using Selected Survey Items to Predict Student Failure.*

Actual End-of-Year Status	Number of Cases	Predicted Group Membership	
		Non-Promoted	Promoted
Non-Promoted	383	60 (15.7%)	323 (84.3%)
Promoted	1800	83 (4.6%)	1717 (95.4%)

* Survey items included in this analysis were item numbers 1, 2, 7, 12, 13, 19, 23, 28, 32, 33, 34, and 39 from Appendix A.

A second discriminant analysis was attempted using factor scores and the

variables identified in Table 2. Also included in Table 2 are the mean scores by group for each of these variables. Complete data for analysis were obtained on a total of 1,447 students. Point-biserial correlation coefficients of 0.1 and higher between these variables and student promotion are shown in Appendix B.

Table 2. Variables and Mean Scores By Promoted and Non-Promoted Students As Used In the Discriminant Analysis Involving Survey and File Data.

Variable	Mean Scores By Group		
	Promoted (N=1268)	Non-Promoted (N=179)	Total (N=1447)
School Attendance	168	152	166
Fourth Quarter Attendance	40	37	40
Reading Achievement (NCE)*	52	42	51
Mathematics Achievement (NCE)*	54	41	52
Reading Gain (NCE)**	-2.4	-2.4	-2.4
Mathematics Gain (NCE)**	-1.8	-3.1	-2.0
Years Overage for Grade Level	0.13	0.30	0.15
Race (Percent Black)	55%	69%	57%
Sex (Percent Male)	55%	45%	49%
Survey Factors			
1-Causes of Failure	0.10	-0.22	0.06
2-Attitude Toward School	0.07	-0.11	0.04
3-Attitude Toward School Learning Conditions	0.00	0.04	0.00
4-Encouragement From Family	0.06	0.05	0.06
5-Expectation of Promotion	0.29	-0.39	0.21
6-Previous Trouble or Failure	-0.11	0.18	-0.08
7-Involvement in Activities	-0.11	0.27	-0.06
8-Need For More Help	-0.04	0.03	-0.03
9-SES	0.02	0.31	0.05
10-Ability Rating	-0.07	-0.02	-0.07

* Normal Curve Equivalent.
** Gain was determined by subtracting 1984 scores from 1985 scores.

Results of the second discriminant analysis are summarized in Table 3. As can be seen from Table 3, this analysis classified promoted students with 97% accuracy, but it failed to classify non-promoted students with an acceptable rate of accuracy. Over 81% of the non-promoted students were predicted to pass based on the available data, and it was concluded that these data were not sufficient for use in identifying students who were probable failures.

Table 3. Results of the Discriminant Analysis Using Survey Responses and Student Record Information to Predict Student Failure.

Actual End-of-Year Status	Number of Cases	Predicted Group Membership	
		Non-Promoted	Promoted
Non-Promoted	266	49 (18.4%)	217 (81.6%)
Promoted	1535	40 (2.6%)	1495 (97.4%)

A third discriminant analysis was attempted in an effort to identify probable failures based upon student data that would be available routinely by the end of the first quarter of the school year. Variables included in this analysis were first quarter grade point average, first quarter homeroom attendance, reading achievement status from the previous school year, and mathematics achievement status from the previous school year. (Achievement status was determined from a score on a standardized achievement test.) A separate analysis was conducted for all students at each grade level (7-12).

Results of this analysis are summarized in Table 4. As can be seen from the table, this analysis was not very successful in identifying probable failures. The accuracy rate for predictions was highest at grades nine and ten (where the system's highest failure rates occur), but the rate is still

below 50%. Once again, it was concluded that these data were not sufficient to identify probable failures with an acceptable rate of accuracy.

Table 4. Results of the Discriminant Analysis Using Selected Variables by Grade to Predict Student Failure.

Grade Level	Number of Cases	Number of Non-Promoted Students	Percentage of All Non-Promoted Students Predicted to Fail
7	2653	202	11.9%
8	2874	175	4.6%
9	3216	813	38.7%
10	2589	476	40.5%
11	2120	138	12.3%
12	2029	273	12.8%

Discussion

Results of this study were somewhat disappointing in that no accurate means of identifying probable failures was established even though a large amount of data on students was available. The analysis did identify some key differences between promoted and non-promoted students overall, but even with these existing differences, the discriminant analysis procedure was not useful in classifying students as probable failures. As the study was being planned, it was hoped that the results could be used to identify students clearly in danger of failing using data readily available in a central computerized file. If it had been successful, lists of students by school in this category of probable failures could have been generated centrally and warning letters could have been sent to parents and students from the computer center. In addition, it was desired that the results would be useful in identifying the key factors that needed improvement by each student. This information could have guided intervention efforts at each school.

A number of reasons seem likely as explanations for the lack of desired success in this study. First, there is an overlap of key factors such as attendance and achievement levels between groups of promoted and non-promoted students at the secondary school level. Overall, the promoted students were about one stanine level higher in achievement status, but many high achieving students (as measured by standardized tests) were not promoted and many low achieving students were. A partial explanation of this fact is that low achieving students usually take more basic courses at these grade levels while higher achieving students take more difficult college preparatory courses.

A second condition which hindered a clear distinction between promoted and non-promoted students was the school system's policy which required a student to pass the fourth quarter in a course before a passing grade could be granted for that course at the end of the school year. Other studies conducted by school system personnel indicated that many students who would have passed courses otherwise, failed because of this policy.

A third condition is caused by the promotion requirement in grades nine through eleven. At these grades, a student must have earned a minimum of 4.5, 9.0, and 13.5 of cumulative Carnegie units respectively to be promoted. Some students with a previous failure at one of these grades may need to earn only one or two credits to be promoted while another student who actually earned as many as four credits during the year, may fall short of the minimum number and be termed as non-promoted. The former student would be in a situation where an additional year of schooling would likely be needed for graduation even though promotion status was achieved for the year. The latter student should be able to graduate on schedule simply by taking one extra course at one of the higher grade levels even though this student was termed as non-promoted.

It does seem clear from this study that the identification of probable failures at the secondary school level cannot be done accurately using the

types of data available in this effort. This seems to indicate that efforts to identify failing students early for placement in an intervention program will have to be done by staff members at the local school level based upon a more detailed knowledge of student records and reports from teachers.

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APPENDIX A
SUMMARY OF RESULTS
GRADE 9 & 10 STUDENT SURVEY - SPRING, 1985
NUMBER OF RESPONDENTS = 2,313

About My Family

		PERCENT OF RESPONSES	
		FAIL (N=423)	PASS (N=1890)
1. How far did your mother (or guardian) go in school?			
$X^2 = 20.6$ $p < .001$	1. Elementary School	1%	2%
	2. Some High School	23	19
	3. High School Graduate	45	38
	4. Some College	18	20
	5. College Graduate/ Advanced Degree	13	21
2. Who do you live with?			
$X^2 = 40.5$ $p < .001$	1. Legal Guardian	4%	4%
	2. Close Relative	4	2
	3. Father Only	4	4
	4. Mother Only	55	40
	5. Mother and Father	33	50
3. How many brothers and sisters do you have?			
$X^2 = 4.5$ $p < .05$	1. None	10%	9%
	2. 1 or 2	41	46
	3. 3 or 4	25	25
	4. 5 or 6	14	11
	5. 7 or More	10	9
4. Has one or your parents (or guardians) been unemployed in the past year (laid off or looking for a job)?			
No significant difference.	1. Yes	29%	29%
	2. Not Sure	11	9
	3. No	60	62
5. My family encourages and helps me with my school plans.			
$X^2 = 27.1$ $p < .001$	1. Strongly Disagree	3%	2%
	2. Disagree	5	6
	3. No Opinion	20	13
	4. Agree	48	44
	5. Strongly Agree	24	35
6. I get praise at home for good school work.			
$X^2 = 20.0$ $p < .001$	1. Strongly Disagree	5%	3%
	2. Disagree	8	6
	3. No Opinion	21	16
	4. Agree	46	45
	5. Strongly Agree	20	30

		2.	PERCENT OF RESPONSES	
			FAIL	PASS
7.	Problems at home have affected my school work.	1. Strongly Disagree	16%	25%
		2. Disagree	30	30
	$\chi^2 = 29.2$ $p < .001$	3. No Opinion	19	18
		4. Agree	20	19
		5. Strongly Agree	15	8
8.	My family talks things over with each other very often.	1. Strongly Disagree	9%	6%
		2. Disagree	15	14
	$\chi^2 = 13.9$ $p < .01$	3. No Opinion	22	22
		4. Agree	43	40
		5. Strongly Agree	12	18
9.	My family does not care whether I graduate from high school.	1. Strongly Disagree	69%	81%
		2. Disagree	17	10
	$\chi^2 = 34.6$ $p < .001$	3. No Opinion	6	3
		4. Agree	3	2
		5. Strongly Agree	6	4
10.	My family both understands and accepts me.	1. Strongly Disagree	5%	3%
		2. Disagree	9	5
	$\chi^2 = 21.9$ $p < .001$	3. No Opinion	19	15
		4. Agree	35	35
		5. Strongly Agree	33	42
11.	Has someone in your family talked with your teachers this year?	1. Yes	64%	54%
		2. No	36	46
	$\chi^2 = 13.3$ $p < .001$			
	Attitudes Toward School			
12.	I like school.	1. Strongly Disagree	12%	5%
		2. Disagree	10	7
	$\chi^2 = 57.7$ $p < .001$	3. No Opinion	27	21
		4. Agree	42	54
		5. Strongly Agree	9	14

	3.	PERCENT OF RESPONSES	
		FAIL	PASS
13. I like my school.	1. Strongly Disagree	14%	7%
	2. Disagree	17	10
$\chi^2 = 68.3$ $p < .001$	3. No Opinion	31	25
	4. Agree	31	44
	5. Strongly Agree	8	15
14. My teachers care about me.	1. Strongly Disagree	9%	5%
	2. Disagree	13	9
$\chi^2 = 27.2$ $p < .001$	3. No Opinion	44	41
	4. Agree	30	37
	5. Strongly Agree	5	8
15. School helps me feel good about myself.	1. Strongly Disagree	9%	4%
	2. Disagree	11	11
$\chi^2 = 34.1$ $p < .001$	3. No Opinion	40	31
	4. Agree	32	42
	5. Strongly Agree	9	13
16. The things I learn in school are important to me.	1. Strongly Disagree	3%	2%
	2. Disagree	3	3
$\chi^2 = 13.6$ $p < .01$	3. No Opinion	16	11
	4. Agree	50	50
	5. Strongly Agree	28	34
17. One of my teachers has praised or rewarded me this year.	1. Strongly Disagree	15%	8%
	2. Disagree	26	17
$\chi^2 = 57.5$ $p < .01$	3. No Opinion	16	15
	4. Agree	33	40
	5. Strongly Agree	10	20
18. I need more individual help from my teachers.	1. Strongly Disagree	6%	7%
	2. Disagree	18	30
$\chi^2 = 34.4$ $p < .001$	3. No Opinion	23	22
	4. Agree	33	28
	5. Strongly Agree	20	13

		4.	PERCENT OF RESPONSES	
			FAIL	PASS
19.	I find school boring.	1. Strongly Disagree	9%	11%
		2. Disagree	28	34
	$X^2 = 14.6$ $p < .01$	3. No Opinion	28	30
		4. Agree	20	16
		5. Strongly Agree	14	9
20.	I look forward to coming to school.	1. Strongly Disagree	11%	6%
		2. Disagree	15	14
	$X^2 = 16.4$ $p < .01$	3. No Opinion	31	29
		4. Agree	35	40
		5. Strongly Agree	9	11
21.	I wish I could change one of my teachers.	1. Strongly Disagree	6%	8%
		2. Disagree	14	16
	No significant difference.	3. No Opinion	13	11
		4. Agree	24	25
		5. Strongly Agree	43	40

Extra Curricular and School Activities

22.	Are you on a school sports team?	1. Yes	19%	24%
	$X^2 = 4.9$ $p < .05$	2. No	81	76
23.	Do you belong to a school club or organization?	1. Yes	17%	31%
		2. No	83	69
	$X^2 = 29.3$ $p < .001$			
24.	Are most of your friends going to school?	1. Yes	87%	93%
		2. No	13	7
	$X^2 = 18.2$ $p < .001$			
25.	Do you have many enemies at school?	1. Yes	26%	21%
		2. No	74	79
	$X^2 = 4.8$ $p < .05$			
26.	Do you belong to any organization such as 4-H, Boy Scouts, Girl Scouts or church groups?	1. Yes	20%	27%
		2. No	80	73
	$X^2 = 10.1$ $p < .01$			
27.	Do you have a public library card?	1. Yes	40%	56%
		2. No	60	44
	$X^2 = 34.5$ $p < .001$			

			PERCENT OF RESPONSES	
			FAIL	PASS
28.	Have you been in serious trouble outside of school?	1. Yes	22%	11%
		2. No	78	89
	$\chi^2 = 33.2$ $p < .001$			
29.	Do you have a regular part time job?	1. Yes	21%	23%
		2. No	71	77
	No significant difference.			
30.	Do you feel you are a slow learner?	1. Yes	11%	8%
		2. No	89	92
	$\chi^2 = 4.6$ $p < .05$			
31.	Do you attend school dances, ball games or social events?	1. Yes	59%	68%
		2. No	41	32
	$\chi^2 = 12.1$ $p < .01$			
School Record and Plans				
32.	Did you fail a grade in elementary school?	1. Yes	23%	12%
		2. No	77	88
	$\chi^2 = 30.5$ $p < .001$			
33.	Did you ever fail grades 7, 8, or 9?	1. Yes	26%	11%
		2. No	74	89
	$\chi^2 = 65.2$ $p < .001$			
34.	Have you ever been suspended from school?	1. Yes	61%	34%
		2. No	39	66
	$\chi^2 = 99.9$ $p < .001$			
35.	Do you expect to be promoted this year?	1. Yes	48%	80%
		2. Not Sure	45	18
	$\chi^2 = 172.3$ $p < .001$	3. No	7	3
36.	Do you have any skills which will help you get a job?	1. Yes	74%	75%
		2. Not Sure	23	22
	No significant difference.	3. No	3	3
37.	Do you know what you want to do after you leave school?	1. Yes	68%	65%
		2. Not Sure	28	30
	No significant difference.	3. No	4	5
38.	Have you talked to a counselor about how you are doing in school?	1. Yes	54%	45%
		2. No	46	55
	$\chi^2 = 10.1$ $p < .01$			

	6.		PERCENT OF RESPONSES	
			FAIL	PASS
39. Do you think that you will graduate from high school?	1.	Yes	78%	91%
	2.	Probably	18	8
$\chi^2 = 56.2$ $p < .001$	3.	Doubtful	3	1
	4.	No	1	0
40. Will most of your friends graduate from high school?	1.	Yes	52%	65%
	2.	Not Sure	43	32
$\chi^2 = 25.9$ $p < .001$	3.	No	5	3

Reasons for Failure

The factors listed below have been cited as causes for a student failing. Tell us which of the factors you believe are serious causes of failure.

41. High absence	1.	No Cause of Failure	13%	11%
	2.	Small Cause of Failure	10	10
No significant difference.	3.	Some Cause of Failure	28	24
	4.	Serious Cause of Failure	24	30
	5.	Very Serious Cause of Failure	25%	25%
42. Slow learning	1.	No Cause of Failure	39%	25%
	2.	Small Cause of Failure	23	24
$\chi^2 = 38.4$ $p < .001$	3.	Some Cause of Failure	24	30
	4.	Serious Cause of Failure	8	14
	5.	Very Serious Cause of Failure	6	8
43. Poor teaching	1.	No Cause of Failure	24%	18%
	2.	Small Cause of Failure	22	16
$\chi^2 = 28.3$ $p < .001$	3.	Some Cause of Failure	22	23
	4.	Serious Cause of Failure	13	19
	5.	Very Serious Cause of Failure	18	24
44. Teachers expect too much	1.	No Cause of Failure	29%	25%
	2.	Small Cause of Failure	27	27
No significant difference.	3.	Some Cause of Failure	25	27
	4.	Serious Cause of Failure	12	12
	5.	Very Serious Cause of Failure	8	9

			PERCENT OF RESPONSES	
			FAIL	PASS
45.	Not completing assignments	1. No Cause of Failure	10%	6%
		2. Small Cause of Failure	16	14
	$\chi^2 = 17.4$ $p < .01$	3. Some Cause of Failure	31	27
		4. Serious Cause of Failure	28	34
		5. Very Serious Cause of Failure	15	19
46.	Not studying	1. No Cause of Failure	10%	7%
		2. Small Cause of Failure	17	11
	$\chi^2 = 23.2$ $p < .001$	3. Some Cause of Failure	25	22
		4. Serious Cause of Failure	27	31
		5. Very Serious Cause of Failure	21	29
47.	Marking system is too tough	1. No Cause of Failure	35%	34%
		2. Small Cause of Failure	25	29
	No significant difference.	3. Some Cause of Failure	27	23
		4. Serious Cause of Failure	8	8
		5. Very Serious Cause of Failure	6	7
48.	Bad behavior in class	1. No Cause of Failure	27%	20%
		2. Small Cause of Failure	18	21
	$\chi^2 = 18.9$ $p < .001$	3. Some Cause of Failure	29	26
		4. Serious Cause of Failure	14	21
		5. Very Serious Cause of Failure	11	13
49.	Not paying attention in class	1. No Cause of Failure	20%	10%
		2. Small Cause of Failure	15	17
	$\chi^2 = 39.7$ $p < .001$	3. Some Cause of Failure	28	26
		4. Serious Cause of Failure	24	29
		5. Very Serious Cause of Failure	13	18
50.	Problems at home	1. No Cause of Failure	30%	21%
		2. Small Cause of Failure	17	21
	$\chi^2 = 19.4$ $p < .001$	3. Some Cause of Failure	24	27
		4. Serious Cause of Failure	13	17
		5. Very Serious Cause of Failure	16	14

			PERCENT OF RESPONSES	
			FAIL	PASS
51.	Involvement with drugs and alcohol	1. No Cause of Failure	33%	17%
		2. Small Cause of Failure	5	7
	$\chi^2 = 57.4$ $p < .001$	3. Some Cause of Failure	12	12
		4. Serious Cause of Failure	17	17
		5. Very Serious Cause of Failure	33	47
52.	Doesn't care	1. No Cause of Failure	24%	13%
		2. Small Cause of Failure	6	5
	$\chi^2 = 39.9$ $p < .001$	3. Some Cause of Failure	11	10
		4. Serious Cause of Failure	21	22
		5. Very Serious Cause of Failure	38	50
53.	Hanging around with the wrong crowd	1. No Cause of Failure	25%	18%
		2. Small Cause of Failure	16	14
	$\chi^2 = 15.5$ $p < .01$	3. Some Cause of Failure	24	29
		4. Serious Cause of Failure	19	22
		5. Very Serious Cause of Failure	16	17
54.	Holding a part time job	1. No Cause of Failure	55%	42%
		2. Small Cause of Failure	26	33
	$\chi^2 = 22.7$ $p < .001$	3. Some Cause of Failure	15	20
		4. Serious Cause of Failure	4	4
		5. Very Serious Cause of Failure	1	1
55.	Getting hard teachers	1. No Cause of Failure	35%	30%
		2. Small Cause of Failure	24	30
	No significant difference.	3. Some Cause of Failure	26	27
		4. Serious Cause of Failure	9	8
		5. Very Serious Cause of Failure	6	5
56.	Taking the wrong classes	1. No Cause of Failure	31%	26%
		2. Small Cause of Failure	22	25
	No significant difference.	3. Some Cause of Failure	23	27
		4. Serious Cause of Failure	13	13
		5. Very Serious Cause of Failure	11	9

			PERCENT OF RESPONSES	
			FAIL	PASS
57.	Doesn't take school seriously	1. No Cause of Failure	20%	11%
		2. Small Cause of Failure	12	12
	$\chi^2 = 31.6$ $p < .001$	3. Some Cause of Failure	22	20
		4. Serious Cause of Failure	25	28
		5. Very Serious Cause of Failure	21	29
58.	Trying hard but getting discouraged	1. No Cause of Failure	18%	12%
		2. Small Cause of Failure	25	27
	$\chi^2 = 22.7$ $p < .001$	3. Some Cause of Failure	25	33
		4. Serious Cause of Failure	18	19
		5. Very Serious Cause of Failure	14	9
59.	Can't get extra help	1. No Cause of Failure	25%	18%
		2. Small Cause of Failure	22	23
	$\chi^2 = 15.5$ $p < .01$	3. Some Cause of Failure	29	30
		4. Serious Cause of Failure	14	20
		5. Very Serious Cause of Failure	10	9
60.	Course requirements not clear	1. No Cause of Failure	30%	24%
		2. Small Cause of Failure	24	28
	No significant difference.	3. Some Cause of Failure	28	27
		4. Serious Cause of Failure	12	13
		5. Very Serious Cause of Failure	6	8
61.	Parents don't care	1. No Cause of Failure	39%	25%
		2. Small Cause of Failure	10	12
	$\chi^2 = 32.8$ $p < .001$	3. Some Cause of Failure	13	16
		4. Serious Cause of Failure	15	18
		5. Very Serious Cause of Failure	23	29

APPENDIX B

CORRELATION OF SELECTED VARIABLES WITH
STUDENT PROMOTION AT GRADES NINE AND TEN

VARIABLE	POINT-BISERIAL COEFFICIENT (N=2424)
Annual School Attendance (Number of Days Present During School Year)	0.45
First Quarter School Attendance	0.30
Student Expectation of Promotion/Graduation *	0.28
Mathematics Achievement Status	0.24
Reading Achievement Status	0.19
Overage for Grade Level	-0.15
Previous Failure/School Problems *	-0.14
Involvement in School Activities *	0.13
Race **	0.10
Socioeconomic Status	0.10
Student Attitude Toward School *	0.10

* Values for these items were determined from responses to the student survey.

** White students were somewhat more likely to pass.